

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
<p>The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Service Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p> <p>PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ORGANIZATION.</p>					
1. REPORT DATE (DD-MM-YYYY) 01/19/2018		2. REPORT TYPE Poster		3. DATES COVERED (From - To) 01/19/2018-01/21/2018	
4. TITLE AND SUBTITLE Plasmacytoma Infiltrating Leiomyoma in Multiple Myeloma				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Capt Eden, Rina				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) 59th Clinical Research Division 1100 Willford Hall Loop, Bldg 4430 JBSA-Lackland, TX 78236-9908 210-292-7141				8. PERFORMING ORGANIZATION REPORT NUMBER 17538	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) 59th Clinical Research Division 1100 Willford Hall Loop, Bldg 4430 JBSA-Lackland, TX 78236-9908 210-292-7141				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.					
13. SUPPLEMENTARY NOTES Texas Society of Pathologists Annual Meeting 2018, Houston, Texas, January 19-21, 2018					
14. ABSTRACT Extraosseous plasmacytoma is rare within the female genital tract. Here, we report the case of a 55 year-old female with a history of multiple myeloma who presented with a six month history of postmenopausal vaginal bleeding. Speculum exam revealed a mass protruding through the cervical canal highly suggestive of a prolapsed leiomyoma. After surgical resection, gross examination of the presumptive myomectomy specimen revealed a 4cm white, whorled mass with no areas of necrosis or hemorrhage. Microscopically, the mass was comprised of a well-circumscribed proliferation of smooth muscle diffusely effaced and expanded by a population of CD138+, lambda light chain-restricted plasma cells. We hypothesize that a preexisting submucosal leiomyoma became colonized by neoplastic plasma cells with resultant expansion and protrusion of the leiomyoma through the cervical canal. This case highlights a rare presentation of an extraosseous plasmacytoma within the female genital tract and to our knowledge is the first reported case of a plasmacytoma involving a leiomyoma.					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON Clarice Longoria
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. TELEPHONE NUMBER (Include area code) 210-292-7141



Plasmacytoma Infiltrating Leiomyoma in Multiple Myeloma

Authors: Rina E. K. Eden, DO; Jean M. Coviello, DO; Nathaniel E. Smith, MD

Department of Pathology and Area Laboratory Services, San Antonio Military Medical Center, Fort Sam Houston, TX, USA



Abstract

Extrasosseous plasmacytoma is rare within the female genital tract. Here, we report the case of a 55 year-old female with a history of multiple myeloma who presented with a six month history of postmenopausal vaginal bleeding. Speculum exam revealed a mass protruding through the cervical canal highly suggestive of a prolapsed leiomyoma. After surgical resection, gross examination of the presumptive myomectomy specimen revealed a 4cm white, whorled mass with no areas of necrosis or hemorrhage. Microscopically, the mass was comprised of a well-circumscribed proliferation of smooth muscle diffusely effaced and expanded by a population of CD138+, lambda light chain-restricted plasma cells. We hypothesize that a preexisting submucosal leiomyoma became colonized by neoplastic plasma cells with resultant expansion and protrusion of the leiomyoma through the cervical canal. This case highlights a rare presentation of an extrasosseous plasmacytoma within the female genital tract and to our knowledge is the first reported case of a plasmacytoma involving a leiomyoma.

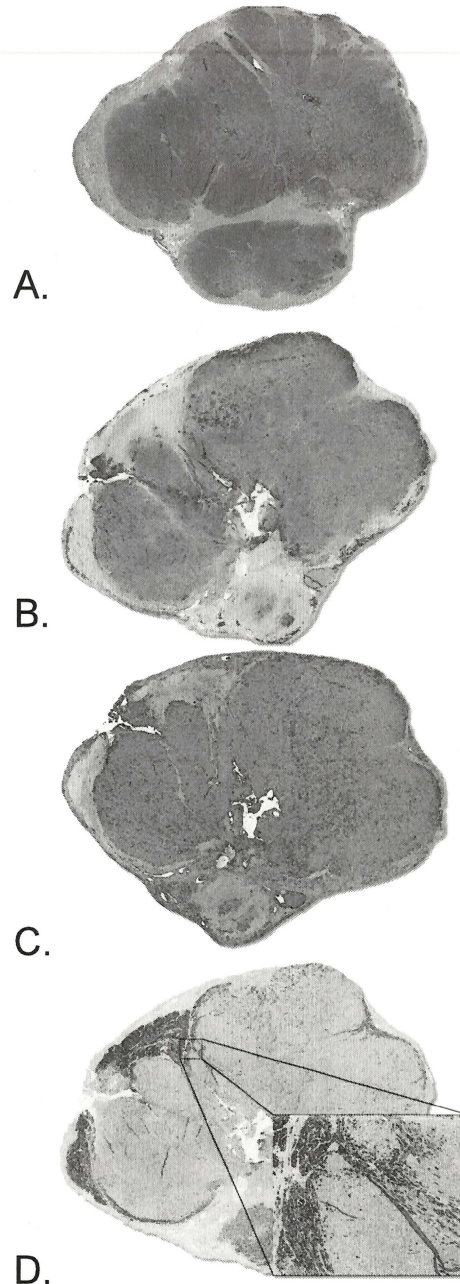
Case Report

56 year-old postmenopausal female with recent history of relapsing multiple myeloma presented to the emergency department with worsening vaginal bleeding. On speculum exam, a smooth 4 cm mass with a 0.5cm stalk attached to the uterine cervix was observed. The physical exam was consistent with a prolapsing leiomyoma. The mass was removed under anesthesia and submitted to pathology for exam.

Gross Examination: White-tan, firm well-circumscribed mass measuring 4 x 2.5 x 2.5 cm with homogenous white-tan whorled cut surface with few punctate hemorrhages and negative for necrosis.

Histologic Examination: Tissue demonstrated atypical, diffuse population of plasma cells that were positive for CD138 and lambda light chain immunohistochemical stains. The background tissue showed a desmin positive fascicular smooth muscle population without atypia, consistent with a leiomyoma and clinical history of fibroid uterus.

Follow-up: Patient refused hysterectomy and was not reevaluated by gynecology-oncology. The patient's multiple myeloma became refractory to chemotherapy and the patient was placed on hospice 7 months after the uterine plasmacytoma was removed.



Pathology

Figure A. Diffuse plasmacytic infiltrate expanding a smooth muscle mass, H & E stain (4x).

Figure B. CD 138 immunohistochemical stain demonstrating plasma cell distribution (4x).

Figure C. Lambda light chain immunohistochemistry stain demonstrating the lambda restricted plasma cell population (4x).

Figure D. Desmin immunohistochemical stain demonstrating the residual leiomyoma (4x).

Discussion

Gynecologic presentation of solitary extramedullary plasmacytoma (SEMP) is rarely discussed in the literature. SEMP and multiple myeloma (MM) have drastically different management and prognoses. There have been only twenty-four cases of gynecologic plasmacytoma reported¹, none of which have involved the myometrium or leiomyomata. Only three of the cases were determined to be related to systemic MM. Uterine cervix plasmacytomas treated with complete surgical resection with hysterectomy were found to have no gynecologic recurrence or progression at follow-up ranging from 3 months to 3.5 years later²⁻³. However, it is estimated that 30-50% of cases of SEMP will progress to systemic disease⁴. This may imply that a complete surgical resection of myometrial plasmacytoma would be beneficial in SEMP and may have benefit in MM involvement of the myometrium in addition to systemic treatment for symptomatic relief and prevention of gynecologic recurrence.

References

References:

1. Feldman et al. Management of Gynaecologic Plasmacytoma: A review article. *Journal of Obstetrics and Gynaecology* 19 Oct 2016.
2. Sun et al. A case of extramedullary solitary plasmacytoma arising at the uterine cervix. *Eur. J. Gynaec. Oncol.* 33: 4, 2012, 423-424.
3. Schor et al. Primary plasmacytoma of the cervix in a 21-year-old female patient. *Int. J. of Gynecological Pathology.* 29, 2010, 290-293
4. Weber et al. Solitary bone and extramedullary plasmacytoma. *Hematology Am. Soc. Hematol. Educ. Program*, 2005, 373.

Acknowledgements:

Members of the diagnostic and clinical teams included Dr. Nicole P. Chappell, MD, staff obstetrician and gynecologist, Devin S. Cooper, MD, resident obstetrician and gynecologist, and Michael A. Wiggins, MD, staff hematologist and oncologist.